

(19) World Intellectual Property
Organization
International Bureau



04 JAN 2005

(43) International Publication Date
15 January 2004 (15.01.2004)

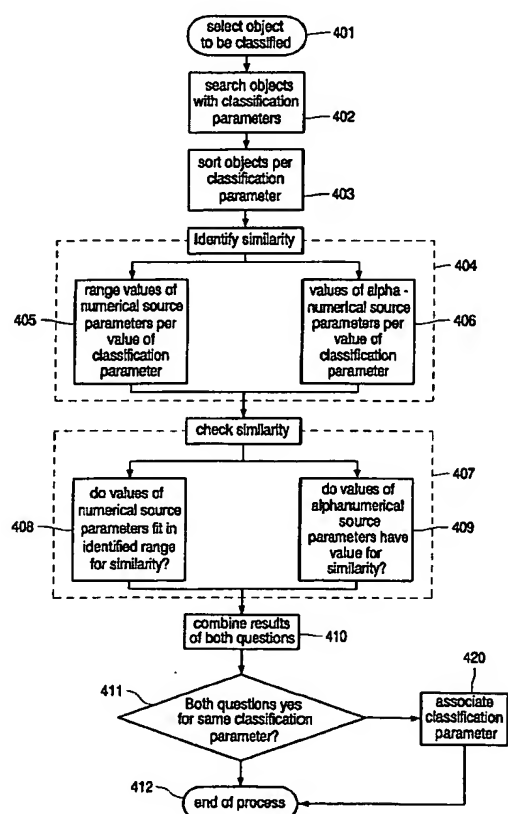
PCT

(10) International Publication Number
WO 2004/006128 A3

- (51) International Patent Classification⁷: **G06F 17/30**
- (21) International Application Number:
PCT/IB2003/002911
- (22) International Filing Date: 27 June 2003 (27.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
02077765.2 9 July 2002 (09.07.2002) EP
- (71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **BODLAENDER, Maarten, P.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (74) Agent: **GROENENDAAL, Antonius, W., M.**; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR CLASSIFICATION OF A DATA OBJECT IN A DATABASE



(57) Abstract: Increasing capacity of storage media allows larger databases. This calls for efficient classification methods to enhance retrieval of data objects like pictures and films. Pictures may carry metadata related to date, time and location of creation. This helps retrieval, but combined queries hamper fast search and retrieval because lots of metadata have to be checked. The invention proposes a method of classifying the data objects by associating the data objects with classification parameters. Each classification parameter is associated with a data object when values of one or more metadata parameters fall within a certain range. Advantageous embodiments provide possibilities for automatic classification by extracting criteria for classification from the database itself. This is done by checking similarity between data objects having equal values for the classification parameter. Similarity is based on the values of the metadata related to, for example, creation of the data object.

WO 2004/006128 A3



Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
1 July 2004

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB/02911

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>HEWAGAMAGE K P ET AL: "Augmented Album: situation-dependent system for a personal digital video/image collection" MULTIMEDIA AND EXPO, 2000. ICME 2000. 2000 IEEE INTERNATIONAL CONFERENCE ON NEW YORK, NY, USA 30 JULY-2 AUG. 2000, PISCATAWAY, NJ, USA, IEEE, US, 30 July 2000 (2000-07-30), pages 323-326, XP010511463 ISBN: 0-7803-6536-4 abstract page 323, left-hand column, line 41 -page 324, right-hand column, line 43 page 325, left-hand column, line 5 -page 326, right-hand column, line 26</p> <p style="text-align: center;">--- -/-</p>	1-18

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

22 April 2004

Date of mailing of the international search report

03/05/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Boyadzhiev, Y

INTERNATIONAL SEARCH REPORT

Application No
PCT/JP03/02911

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 820 027 A (MATSUSHITA ELECTRIC IND CO LTD) 21 January 1998 (1998-01-21) abstract column 5, line 1 -column 7, line 3 column 8, line 19 -column 9, line 13 column 18, line 55 -column 20, line 17 column 24, line 31 -column 25, line 5; figure 23 ---	1, 3-6, 11, 15, 17, 18
A	EP 0 990 996 A (EASTMAN KODAK CO) 5 April 2000 (2000-04-05) abstract column 1, line 3 -column 2, line 9 column 2, line 57 -column 4, line 4 ---	1-18
A	US 6 408 301 B1 (ASHE PHILIP R ET AL) 18 June 2002 (2002-06-18) abstract column 1, line 39 -column 2, line 38 column 4, line 20 -column 4, line 39 column 7, line 65 -column 8, line 29 ---	1-18
A	EP 0 959 418 A (IBM) 24 November 1999 (1999-11-24) cited in the application abstract page 3, line 18 -page 3, line 58 page 4, line 44 -page 5, line 5 page 5, line 29 -page 5, line 50 page 6, line 58 -page 7, line 11 page 9, line 45 -page 10, line 29 -----	1-18

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2003/02911

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0820027	A	21-01-1998	DE 69712835 D1 DE 69712835 T2 EP 0820027 A2 EP 0935206 A2 JP 10083400 A US 6009439 A	04-07-2002 19-09-2002 21-01-1998 11-08-1999 31-03-1998 28-12-1999
EP 0990996	A	05-04-2000	US 6606411 B1 EP 0990996 A2 JP 2000112997 A US 2003198390 A1	12-08-2003 05-04-2000 21-04-2000 23-10-2003
US 6408301	B1	18-06-2002	NONE	
EP 0959418	A	24-11-1999	US 6504571 B1 EP 0959418 A2	07-01-2003 24-11-1999